



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

AW

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/881,856	06/13/2001	Susan M. Duncan	ADAP-1-1002	8532

25315 7590 10/27/2003

BLACK LOWE & GRAHAM, PLLC  
701 FIFTH AVENUE  
SUITE 4800  
SEATTLE, WA 98104

EXAMINER

REIS, TRAVIS M

ART UNIT	PAPER NUMBER
----------	--------------

2859

DATE MAILED: 10/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/881,856

Applicant(s)

DUNCAN, SUSAN M.

Examiner

Travis M Reis

Art Unit

2859

AW

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 September 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3-6,8-22,25,26 and 28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-6,8-22,25,26 and 28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Amendment***

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

### ***Claim Objections***

2. Claim 15 is objected to because of the following informalities: in line 1, "14" should be ---26---. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 4-6, 12-14, 21, 22, 25, & 28 are rejected under 35 U.S.C. 102(b) as being anticipated by Bobrick (02, 1993).

Bobrick discloses a design tool & system (see attachment) for use in association with design plans having hallways, doorways, stairways, rooms and other spaces of a known scale, for functional and space planning in the fields of architecture, interior design, and construction of residential and commercial structures (col. 1 lines 29-30 through col. 2 lines 1-9), comprising a icon figure member (A) shaped as a human (B) seated in a wheelchair (C) with at least two wheels (D) supporting the chair of the icon figure member, the member having a base (E) engagable with the design plans (see attachment); the icon figure member attached to said base, said base equal to or greater than the diameter of the icon figure member (see attachment), and scaled (F) to indicate a turning radius to imitate & indicate the turning radius of a wheelchair support device (Figure 2) along the hallways, doorways,

Art Unit: 2859

stairways, rooms and other spaces of the design plan to visually illustrate the feasibility of movement along the noted paths in light of the size and turning radius of the represented person; and a secondary member (G) extending from the icon figure member at any angle relative to the surface of the base other than perpendicular (Figure 4a).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 14, 19-21, 25, & 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bobrick in view of Marshall (U.S. Patent 1625041).

Bobrick discloses a design tool & system (see attachment) for use in association with design plans having hallways, doorways, stairways, rooms and other spaces of a known scale, for functional and space planning in the fields of architecture, interior design, and construction of residential and commercial structures (col. 1 lines 29-30 through col. 2 lines 1-9), comprising a two dimensional icon figure member (A), the member having a base (E) engagable with the design plans (see attachment); the icon figure member attached to said base, said base equal to or greater than the diameter of the icon figure member (see attachment), and scaled (F) to indicate a turning radius to imitate & indicate the turning radius of a wheelchair support device (Figure 2) along the hallways, doorways, stairways, rooms and other spaces of the design plan to visually illustrate the feasibility of movement along the noted paths in light of the size and turning radius of the represented person.

Bobrick does not disclose the icon figure member is a three-dimensional figure shaped as a wheelchair or a human seated in a wheelchair.

Marshall discloses a device including a chart device & means which utilize three dimensional figures including various types of persons (30-32, 36) (Figures 3, 6, & 11) (page 2 lines 67-69). These figures are scaled to represent the proportionate relationship between objects (i.e. people, cars, etc.) within the chart device. Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention was made to shape the icon figure member disclosed by Bobrick into a three dimensional figure shaped as a wheelchair or a human seated in a wheelchair as taught by the various persons disclosed by Marshall in order that the height of fixtures in the design plan are properly considered, the need for which is demonstrated in Figure 1 of Bobrick.

7. Claims 3-6, 8, 9, 11-13, 15, 16, 18, 22, & 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bobrick & Marshall as applied to claims 1, 4-6, 12-14, 19-22, 25, & 28 above and further in view of Stansbury (U.S. Patent 4276695).

With reference to claims 3, 8, 9, 11, 15, 16, & 26, Bobrick & Marshall disclose all of the instant claimed invention as stated above in the rejection of claims 1, 4-6, 12-14, 19-22, 25, & 28, but do not disclose a wand member with a first and second end extending from the icon figure member at any angle relative to the perpendicular, from an opening in the icon figure member wherein a first end of the wand member is maintained within the opening by frictional contact or a snap lock combination.

Stansbury discloses a roller measure device (30) with an opening (101) with a wand/handle member (44) wherein the wand/handle member is held within the opening by frictional contact in order to push the device around easily (col. 6 lines 48-50) (Figure 5). Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention was made to add the opening and wand/handle member disclosed by Stansbury to

Art Unit: 2859

the icon figure member disclosed by Bobrick & Marshall in order to pick up, place, and move the icon figure member around the plans more easily.

With reference to claims 11 & 18, Bobrick & Marshall do not disclose first and second ridges along the opening and wand/handle member respectively to provide a snap lock combination.

Stansbury also discloses other types of connection means including snap lock combinations between two ridges (172, 173) on two pieces (52) of the wand/handle member (Figure 5).

Stansbury discloses other types of connection means including a connection means between two ridges (172, 173) on two pieces (52) of the wand/handle member that form a snap lock combination when placed together (Figure 9). Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention was made to add the ridge member disclosed by Stansbury to the opening and end of the wand/handle member disclosed by Bobrick & Marshall in order to have a snap lock combination, in order that the handle is securely connected to the design tool and since a snap lock combination is an common alternative means of connection.

8. Claims 10 & 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bobrick, Marshall, & Stansbury as applied to claims 3, 8, 9, 11, 15, 16, 18, & 26 above, and further in view of Riehle (U.S. Patent 4250642).

Bobrick, Marshall, & Stansbury disclose all of the instant claimed invention as stated above in the rejection of claims 3, 8, 9, 11, 15, 16, 18, & 26 but do not disclose a metal plate located in the opening, and a magnet in the end of the wand/handle member, thereby providing a plate-magnet combination.

Art Unit: 2859

Riehle discloses a planning aid and that metal plates and magnetic planning elements connecting to said plates are common in the art (col. 1 lines 30-34). Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention was made to add the metal plate and magnet disclosed by Riehle to the design tool disclosed by Bobrick, Marshall, & Stansbury in order to provide a strong, but easily releasable connection means, and since a magnet and metal plate combination is an common alternative means of connection.

### ***Response to Arguments***

9. Applicant's arguments filed 3/4/03 with respect to claims 1, 3-6, 8-22, 25, 26, & 28 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The ADA Accessibility Guidelines for Buildings and Facilities set forth the proper dimensions of facilities (ADA Accessibility Guidelines). Crosbie discloses "The ADA at Ten: Is it Working?" (Architecture Week Page N1.1). Han et al. discloses "A performance-based approach to wheelchair accessible route analysis (Advanced Engineering Informatics ADVE12).

11. Applicant's amendment filed 3/4/03 necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until

Art Unit: 2859

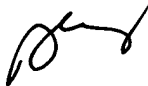
after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Travis M Reis whose telephone number is (703) 305-4771. The examiner can normally be reached on 8--5 M--F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego Gutierrez can be reached on (703) 308-3875. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for all communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Travis M Reis  
Examiner  
Art Unit 2859



Diego Gutierrez  
Supervisory Patent Examiner  
Technology Center 2800

tmr  
October 15, 2003



# PLACE FOR PEOPLE IN WHEELCHAIRS IS A FUNDAMENTAL DESIGN CONSIDERATION

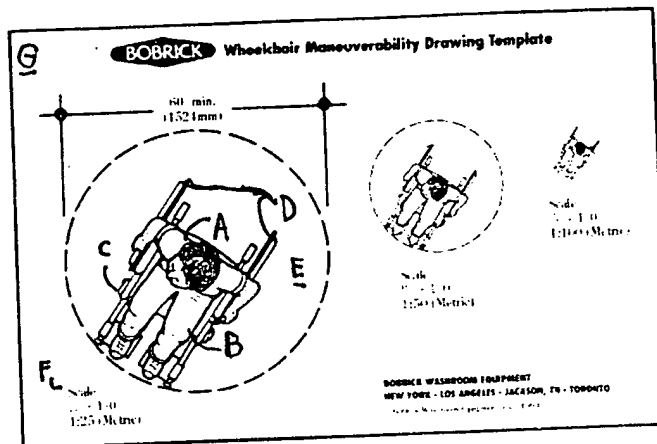
The needs of an adult seated in a wheelchair are commonly used as the standard of accessibility for barrier-free washrooms in terms of entrance, exit, and the proximity of equipment. By using the wheelchair perspective you can also accommodate a person using a walker, cane, or crutches. Consideration must also be given to the mounting heights of common accessories, such as mirrors, paper towel dispensers, waste receptacles, soap dispensers, napkin/tampon and condom vendors, and toilet partition-mounted equipment, including grab bars, toilet tissue and seat-cover dispensers, and sanitary napkin disposals.

**CLEAR FLOOR SPACE** to accommodate a single wheelchair must be at least 30" x 48" (760 x 1219mm). The space can be positioned for a *forward* or *parallel approach* to equipment (see ADAAG 4.2.4). A portion of the clear floor space may be located under fixtures, lavatories, or accessories as long as the required knee and toe clearance is provided (Fig. 4a). If properly centered in front of controls and operating mechanisms, the clear floor space will allow both left- and right-hand access to the equipment. Floor spaces may have to be wider if elements are placed in alcoves.

**MOUNTING HEIGHT REQUIREMENTS** for washroom accessories may vary within a facility depending on the location of individual accessories and the direction of reach required for their use. To allow *side reach* by people in wheelchairs, it is recommended that accessories be mounted with their dispensing mechanisms, start buttons, coin slots, or dispenser openings located 38" to 54" (965-1372mm) above the finish floor; and to ensure *forward reach* also, they must be located no more than 48" (1219mm) above the finish floor (Fig. 1). Where elements are mounted over obstructions, such as counters, they must be located no more than 44" (1118mm) above the finish floor. Mounting heights for children will differ from these given here and in ADAAG for adults. In facilities used predominantly by children appropriate adjustments in dimensions will be necessary.

**TURNING SPACE** at least 60" (1524mm) in diameter is required by a single wheelchair to make a 180-degree turn (Fig. 2a). A 60" x 60" (1524 x 1524mm)

T-shaped turning space with 36" (914mm) wide aisles to allow a three-point turn (Fig. 2b) is also acceptable and may be used to conserve space in some installations. A portion of the 60" (1524mm) diameter or T-shaped turning spaces may be located under fixtures, lavatories, or accessories as long as the required knee and toe clearance is provided (Fig. 1a).



## Bobrick's wheelchair maneuverability drawing template.

Three plan views of a person in a wheelchair are illustrated in scales of  $1/4" = 1'-0"$  (1:100 metric),  $1/2" = 1'-0"$  (1:50 metric), and  $3/4" = 1'-0"$  (1:25 metric). The template is printed on clear rigid plastic so it can be placed over drawings to confirm proper clearance and maneuverability within the installation plans. It is especially helpful in designing entrances, lavatory areas, and toilet compartments.

Fig. 1 Bobrick's Recommended Mounting Heights for Washroom Accessories

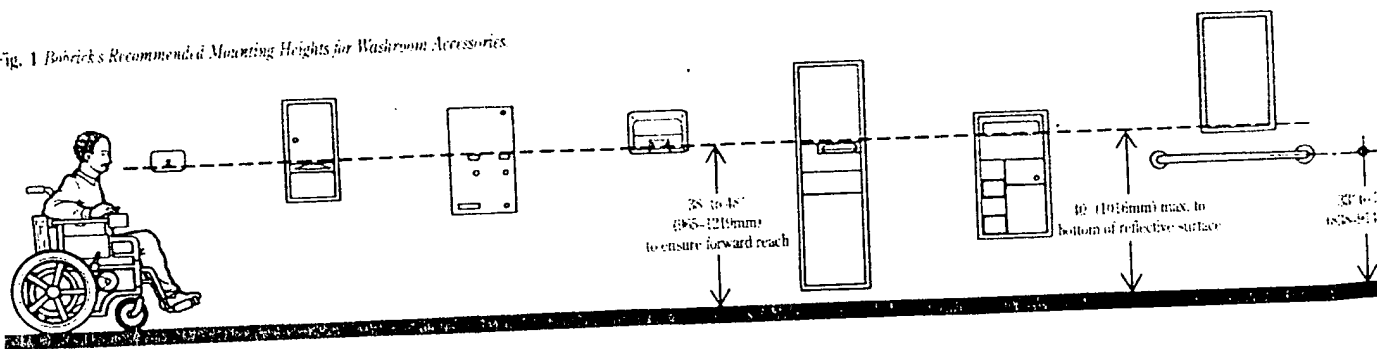


Fig. 2 Wheelchair Turning Space for 180° Turns

Scale: 1/4" = 1'-0"

